Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. All cancelled claims are cancelled without prejudice.

Listing of Claims:

1. (original) A method for determining the presence of coliform bacteria in a water sample comprising the steps of:

   a) separating said bacteria from said sample using a first filter means;

   b) culturing said bacteria in a broth comprising nutrients for supporting growth of said bacteria and an inducing agent for inducing enzyme production in said bacteria;

   c) separating said bacteria from said broth using a second filter means;

   d) exposing said bacteria to a lysing agent;

   e) incubating a chemiluminogenic substrate of said enzyme with said enzyme to cause cleavage of said substrate, thereby producing a luminescent product;

   f) initiating light emission by exposing said luminescent product to an enhancing agent; and,

   g) detecting said light emission to thereby determine the presence of said bacteria in said sample.

2. (cancelled).

3. (currently amended) The method of claim 1 ~~or 2~~ wherein said bacteria are separated from said broth before being exposed to said lysing agent.

4. (currently amended) The method of ~~any one of~~ claim~~s~~ 1 ~~to 3,~~ wherein said bacteria are on said second filter means during exposure to said lysing agent.

5. (currently amended) The method of ~~any one of~~ claim~~s~~ 1 ~~to 4,~~ wherein said light emission is detected by means of a luminometer.

6. (currently amended) The method of claim ~~5~~ 1, wherein said luminescent product is on said second filter means during detection of said light emission.

7. (currently amended) The method of claim ~~6~~ 5, wherein said luminescent product is on said second filter means during detection of said light emission and wherein said second filter means is ~~placed~~ within said luminometer during detection of said light emission.

8. (cancelled).

9. (currently amended) The method of ~~any one of~~ claims 1 ~~to 8~~, wherein said culturing is at a temperature of about 22 to 45 °C for about 2 to 10 hours.

10. (currently amended) The method of ~~any one of~~ claims 1 ~~to 9,~~ wherein said chemiluminogenic substrate comprises 1,2-dioxetane.

11. (currently amended) The method of ~~any one of~~ claims 1 ~~to 10,~~ wherein said enhancing agent comprises quaternary ammonium homopolymer.

12. (cancelled).

13. (currently amended) The method of ~~any one of~~ claims 1 ~~to 13,~~ wherein said enzyme is ß-D-galactosidase.

14. (original) The method of claim 13, wherein said culturing is at a temperature of about 35 °C for about 5 hours.

15. (currently amended) The method of claim 13 ~~or 14~~, wherein said inducing agent comprises isopropyl-ß-D-thiogalactopyranoside (IPTG), lactose, or a combination thereof.

16. (currently amended) The method of ~~any one of~~ claims 13 ~~to 15~~, wherein said substrate comprises 3-chloro-5-(4-methoxyspiro{1,2-dioxetane-3,2'-(5'-chloro)-tricyclo-[3.3.3.$3^{3,7}$]decan}-4-yl)phenyl β-D-galactopyranoside.

17. (cancelled).

18. (cancelled).

19. (currently amended) The method of ~~any one of~~ claims 1 ~~to 12~~, wherein said enzyme is ß-D-glucuronidase.

20. (original) The method of claim 19, wherein said culturing is at a temperature of about 44.5 °C for about 9 hours.

21. (currently amended) The method of claim 19 ~~or 20~~, wherein said inducing agent comprises methyl-ß-D-glucuronide (Met-Glu).

22. (currently amended) The method of ~~any one of~~ claims 19 ~~to 21~~, wherein said substrate comprises sodium 3-(4-methoxyspiro{1,2-dioxetane-3-,2'-(5'-chloro)-tricyclo-[3.3.1.1^{3,7}]decan}-4-yl)phenyl β-D-glucuronate.

23. (cancelled).

24. (cancelled).

25. (currently amended) The method of ~~any one of~~ claims 1 ~~to 24~~, wherein said lysing agent comprises toluene, successive freeze thaw cycles, a change of pressure, lysozyme, a detergent, octylphenoxypolyethoxyethanol nonionic surfactant, potassium dihydrogen phosphate, polymyxin-B, or a combination thereof.

26. (cancelled).

27. (currently amended) The method of ~~any one of~~ claims 1 ~~to 26~~, wherein said broth further comprises an inhibiting agent for inhibiting the growth of non-target organisms

28. (cancelled).

29. (original) A method for determining the quantity of coliform bacteria in a water sample comprising the steps of:

a) separating said bacteria from said sample using a first filter means;

b) culturing said bacteria in a broth comprising nutrients for supporting growth of said bacteria and an inducing agent for inducing enzyme production in said bacteria;

c) separating said bacteria from said broth using a second filter means;

d) exposing said bacteria to a lysing agent;

e) incubating a chemiluminogenic substrate of said enzyme with said enzyme to cause cleavage of said substrate, thereby producing a luminescent product;

f) initiating light emission by exposing said luminescent product to an enhancing agent; and,

g) measuring said light emission to obtain a light measurement corresponding to the quantity of said enzyme to thereby determine the quantity of said bacteria in said sample.

30.– 85. (cancelled).

86.(original) A kit for determining the presence of coliform bacteria in a drinking water sample comprising the steps of:

a) separating said bacteria from said sample using a first filter means;

b) culturing said bacteria at a temperature of about 22 to 45 °C for about 2 to 10 hours in a broth comprising nutrients for supporting growth of said bacteria and an inducing agent comprising isopropyl-ß-D-thiogalactopyranoside (IPTG) or methyl-ß-D-glucuronide (Met-Glu) for inducing production of an enzyme in said bacteria;

c) separating said bacteria from said broth using a second filter means; followed by,

d) exposing said bacteria on said second filter means to a lysing agent comprising polymyxin-B;

e) incubating a chemiluminogenic substrate of said enzyme comprising 1,2-dioxetane with said enzyme to cause cleavage of said substrate, thereby producing a luminescent product on said second filter means;

f) initiating light emission by exposing said luminescent product to an enhancing agent comprising quaternary ammonium homopolymer; and,

g) detecting or measuring said light emission using a luminometer by placing said second filter means with said luminescent product within said luminometer to thereby determine the presence or quantity of said bacteria in said sample.